SEQUENCE LISTING

<110> Sjoeholm, Carsten
Oestergaard, Peter Rahbek
Kluenter, Anne-Marie

<120> Use of Acid-Stable Subtilisin Proteases in Animal Feed

<130> NOVT 100

<140> 09/779,334
<141> 2001-02-08

<160> 7

<170> PatentIn version 3.1

<210> 1
<211> 17
<212> PRT
<213> Acremonium chrysogenum ATCC 48272

<400> 1

Ala Leu Val Thr Gln Asn Gly Ala Pro Trp Gly Leu Gly Thr Ile Ser
1 5 10 15

His Arg Gln Pro Gly Ser Thr Ser Tyr Ile Tyr
20 25

<210> 2
<211> 17
<212> PRT
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<400> 2

Asn Gln Val Thr Pro Trp Gly Ile Thr Arg Val Gln Ala Pro Thr Ala
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Trp

<211> 17
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<213> Paecilomyces lilacinus CBS 102449

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1 5 10 15

His

<210> 4
<211> 22
<212> PRT
<213> Fusarium oxysporum IFO 4471

<400> 4

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1 5 10 15

His Arg Ser Arg Gly Ser
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Met Lys Phe Lys Lys Ile Ala Ala Leu Ser Leu Ala Thr Ser Leu Ala
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Leu Phe Pro Ala Phe Gly Gly Ser Ser Leu Ala Lys Glu Ala Pro Lys
    -10                 -5                  -1  1                   5

Pro Phe Gln Pro Ile Asn Lys Thr Leu Asp Lys Gly Ala Phe Glu Ser
                10                  15                  20

Gly Glu Val Ile Val Lys Phe Lys Asp Gly Val Ser Lys Lys Ala Gln
            25                  30                  35

Gly Ser Ala Leu Asn Lys Ala Glu Ala Asn Glu Gln Lys Ala Ser Ala
        40                  45                  50

Lys Asp Pro Phe Gln Val Leu Glu Val Ala Asp Val Asp Gln Ala Val
    55                  60                  65

Lys Ala Leu Glu Asn Asn Pro Asn Val Glu Tyr Ala Glu Pro Asn Tyr
70                  75                  80                  85

Thr Phe Gln Ala Thr Trp Ser Pro Asn Asp Pro Tyr Tyr Ser Ala Tyr
                90                  95                  100

Gln Tyr Gly Pro Gln Asn Thr Ser Thr Pro Ala Ala Trp Asp Val Thr
            105                 110                 115

Arg Gly Ser Ser Thr Gln Thr Val Ala Val Leu Asp Ser Gly Val Asp
        120                 125                 130
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Ile Asp Arg Asp Asn Asn Pro Met Asp Leu Asn Gly His Gly Thr His
150 155 160 165

Val Ala Gly Thr Val Ala Ala Asp Thr Asn Asn Gly Ile Gly Val Ala
170 175 180

Gly Met Ala Pro Asp Thr Lys Ile Leu Ala Val Arg Val Leu Asp Ala
185 190 195

Asn Gly Ser Gly Ser Leu Asp Ser Ile Ala Ser Gly Ile Arg Tyr Ala
200 205 210

Ala Asp Gln Gly Ala Lys Val Leu Asn Leu Ser Leu Gly Cys Glu Cys
215 220 225

Asn Ser Thr Thr Leu Lys Ser Ala Val Asp Tyr Ala Trp Asn Lys Gly
230 235 240 245

Ala Val Val Val Ala Ala Ala Gly Asn Asp Asn Val Ser Arg Thr Phe
250 255 260

Gln Pro Ala Ser Tyr Pro Asn Ala Ile Ala Val Gly Ala Ile Asp Ser
265 270 275

Asn Asp Arg Lys Ala Ser Phe Ser Asn Tyr Gly Thr Trp Val Asp Val
280 285 290

Thr Ala Pro Gly Val Asn Ile Ala Ser Thr Val Pro Asn Asn Gly Tyr
295 300 305

Ser Tyr Met Ser Gly Thr Ser Met Ala Ser Pro His Val Ala Gly Leu
310 315 320 325

Ala Ile Glu Gln Thr Ala Asp Lys Ile Ser Gly Thr Gly Thr Asn Phe
345 350 355

Lys Tyr Gly Lys Ile Asn Ser Asn Lys Ala Val Arg Tyr
360 365 370

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<211> 367
<212> PRT
<213> Paecilomyces lilacinus CBS 143.75

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Ala Arg Ala Pro Leu Leu Thr Pro Arg Gly Ala Ser Ser Ser Ser Thr
1 5 10 15

Ala Ser Thr Leu Ser Ser Ser Arg Thr Ala Cys Pro Ser Pro Leu Ser
20 25 30

Thr Arg Leu Ser Ala Leu Cys Ile Arg Arg Lys Thr Ala Ser Thr Thr
35 40 45

Thr Phe Ser Glu Ala Ser Arg Asn Leu Asn Ala Asn Asp Leu Lys Thr
50 55 60

Thr Ile Asn Ala Tyr Thr Gln Gln Pro Gly Ala Pro Trp Gly Leu Gly
85 90 95

Arg Ile Ser His Arg Ser Lys Gly Ser Thr Thr Tyr Glu Tyr Asp Thr
100 105 110

Ser Gly Gly Ser Gly Thr Cys Ala Tyr Val Ile Asp Thr Gly Val Glu
115 120 125

Ala Ser His Pro Glu Phe Glu Gly Arg Ala Ser Gln Ile Lys Ser Phe
130 135 140

Ile Ser Gly Gln Asn Thr Asp Gly Asn Gly His Gly Thr His Cys Ala
145 150 155 160

Gly Thr Ile Gly Ser Lys Thr Tyr Gly Val Ala Lys Lys Thr Lys Ile
165 170 175

Tyr Gly Val Lys Val Leu Asp Asn Ser Gly Ser Gly Ser Tyr Ser Gly
180 185 190

Ile Ile Ser Gly Met Asp Phe Ala Val Gln Asp Ser Lys Ser Arg Ser
195 200 205

Cys Pro Lys Gly Val Val Ala Asn Met Ser Leu Gly Gly Gly Lys Ala
210 215 220

Gln Ser Val Asn Asp Gly Ala Ala Ala Met Ile Arg Ala Gly Val Phe
225 230 235 240

Leu Ala Val Ala Ala Gly Asn Asp Asn Ala Asn Ala Ala Asn Tyr Ser
245 250 255

Asp Ala Arg Ser Ser Phe Ser Asn Tyr Gly Asn Leu Val Asp Ile Phe
275 280 285

Ala Pro Gly Ser Asn Ile Leu Ser Thr Trp Ile Gly Gly Thr Thr Asn
290 295 300

Thr Ile Ser Gly Thr Ser Met Ala Thr Pro His Ile Val Gly Leu Gly
305 310 315 320

Ala Tyr Leu Ala Gly Leu Glu Gly Phe Pro Gly Ala Gln Ala Leu Cys
325 330 335

Lys Arg Ile Gln Thr Leu Ser Thr Lys Asn Val Leu Thr Gly Ile Pro
340 345 350

Ser Gly Thr Val Asn Tyr Leu Ala Phe Asn Gly Asn Pro Ser Gly
355 360 365

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<212> PRT
<213> Bacillus sp. THS-1001

<400> 7

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Trp Thr Arg Gly Tyr Thr Gly Thr Gly Val Arg Val Ala Val Leu Asp
20 25 30

Thr Gly Ile Ser Thr His Pro Asp Leu Asn Ile Arg Gly Gly Val Ser
35 40 45

[illegible]

His Val Ala Gly Thr Ile Ala Ala Leu Asn Asn Ser Ile Gly Val Val
65 70 75 80

Gly Val Ala Pro Asn Ala Glu Leu Tyr Ala Val Lys Val Leu Gly Ala
85 90 95

Asn Gly Ser Gly Ser Val Ser Ser Ile Ala Gln Gly Leu Gln Trp Thr
100 105 110

Ala Gln Asn Asn Ile His Val Ala Asn Leu Ser Leu Gly Ser Pro Val
115 120 125

Gly Ser Gln Thr Leu Glu Leu Ala Val Asn Gln Ala Thr Asn Ala Gly
130 135 140

Val Leu Val Val Ala Ala Thr Gly Asn Asn Gly Ser Gly Thr Val Ser
145 150 155 160

Tyr Pro Ala Arg Tyr Ala Asn Ala Leu Ala Val Gly Ala Thr Asp Gln
165 170 175

Asn Asn Asn Arg Ala Ser Phe Ser Gln Tyr Gly Thr Gly Leu Asn Ile
180 185 190

Val Ala Pro Gly Val Gly Ile Gln Ser Thr Tyr Pro Gly Asn Arg Tyr
195 200 205

Ala Ser Leu Ser Gly Thr Ser Met Ala Thr Pro His Val Ala Gly Val
210 215 220

Ala Ala Leu Val Lys Gln Lys Asn Pro Ser Trp Ser Asn Thr Gln Ile
225 230 235 240

Arg Gln His Leu Thr Ser Thr Ala Thr Asp Leu Gly Asn Ser Asn Gln

Phe Gly Ser Gly Leu Val Asn Ala Glu Ala Ala Thr Arg
260 265